County of San Diego, MSCP Quino Checkerspot Butterfly Amendment

Stakeholder / Interested Parties Meeting

August 6, 2009

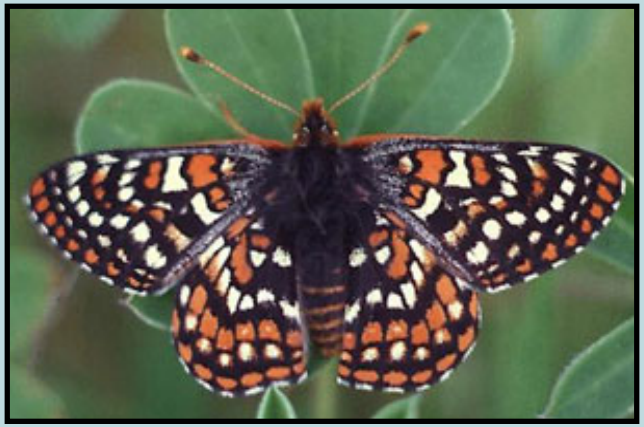


Photo Courtesy of Guy Bruyea

Meeting Agenda

- Quino history.
- Where we are in process and projected timeline.
- Conservation Policy Paper overview.
- Adaptive Management and Monitoring Strategy Paper overview.
- Next steps.
- Discussion, comments, and questions.

Quino History

- Quino checkerspot butterfly was listed as endangered shortly before MSCP was approved in 1997.
- At the time, Wildlife Agencies indicated not enough information for coverage.
- County began an amendment process for butterfly.

Quino History (cont.)

- Without an amendment, projects must proceed through Wildlife Agencies.
- No directed way to allow impacts and mitigation.
- Mitigation has been difficult (CALTRANS).
- Intention is that existing Pre-Approved Mitigation Areas be basis for amendment.

Status of Quino Amendment

- County began process of obtaining coverage shortly after MSCP approval.
- Delay in processing Quino Amendment due to:
  - Multiple and successive seasons of drought in which butterflies did not appear.
  - Budgetary issues had reduced priority of Quino Amendment for the County.
  - Change in direction from earlier work that had been accomplished.

Quino Amendment Process

Where we are…

- Main issues divided into three reports:
  - **Conservation Policy Paper**
  - **Adaptive Management / Monitoring Strategy Paper**
  - **Financing Plan Paper**
- Review of Conservation Policy Paper / Adaptive Management & Monitoring Strategy Paper (comments due August 13).
- Financing Policy Paper to be reviewed at next meeting (early September).

Projected Timeline

- Conservation Policy Paper: Review summer 2009.
- Review of Adaptive Management and Monitoring Strategy Paper: Review summer 2009.
- Financing Plan Paper: Review fall 2009.
- Draft EIR/EIS: Public review spring 2010.
- Final EIR/EIS: Public review fall 2010.
- Board of Supervisors: spring 2011.
- Implementation of Amendment: spring 2011.

Questions?

Conservation Policy Paper

Overview

- Includes:
  - Project processing procedures
  - Anticipated conservation levels
- Does not include:
  - Adaptive management and monitoring
  - Financing plan

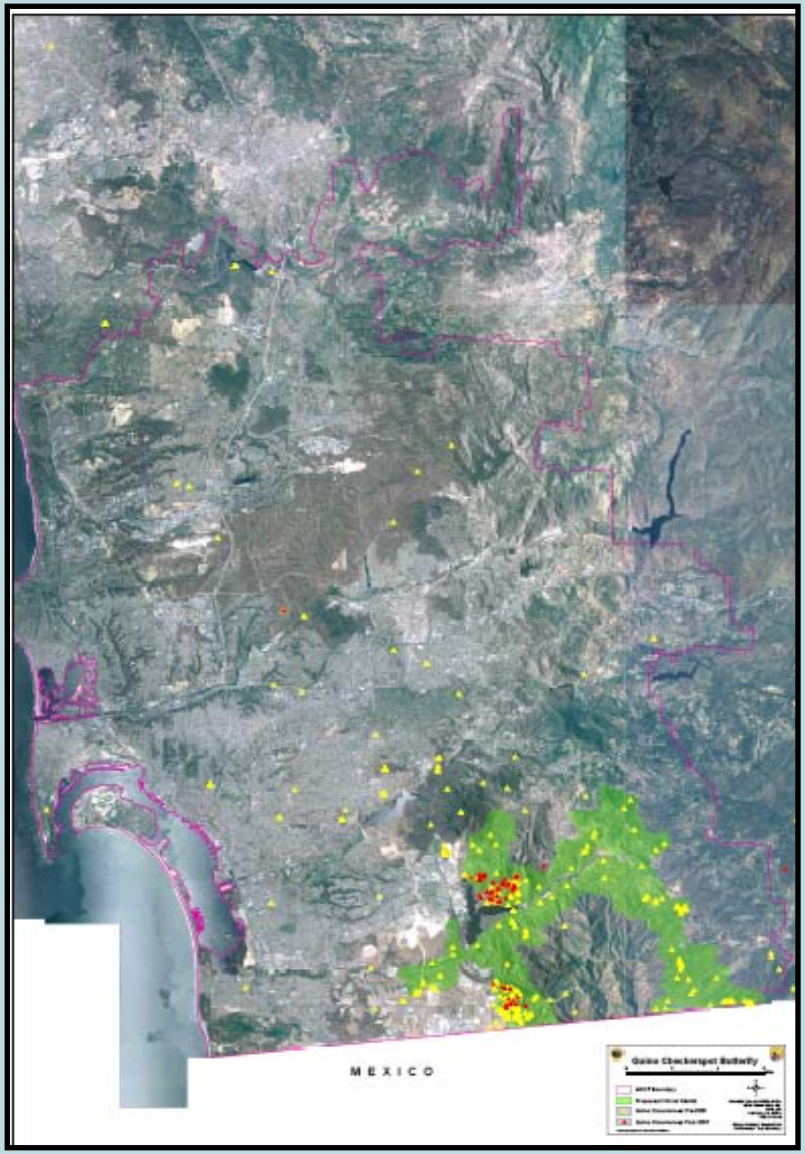
Objectives

- Minimize regulatory burdens associated with Federal Endangered Species Act.
- Preserve sufficient amount of Quino habitat to ensure long-term conservation -- metapopulation dynamics.
- Provide Take Authorization of Quino for public and private projects.

Planning Process

- Identified known Quino observations (1999-2009).
- Developed Potential Quino Habitat Model:
  - Assesses suitability of areas to support Quino.
  - Based on:
    - Habitat types with potential to support Quino.
    - Survey results from 1999-2009.

Revised Critical Habitat Map



Potential Quino Habitat

- Assigned Class A, B, or C based on known observations / negative survey data.

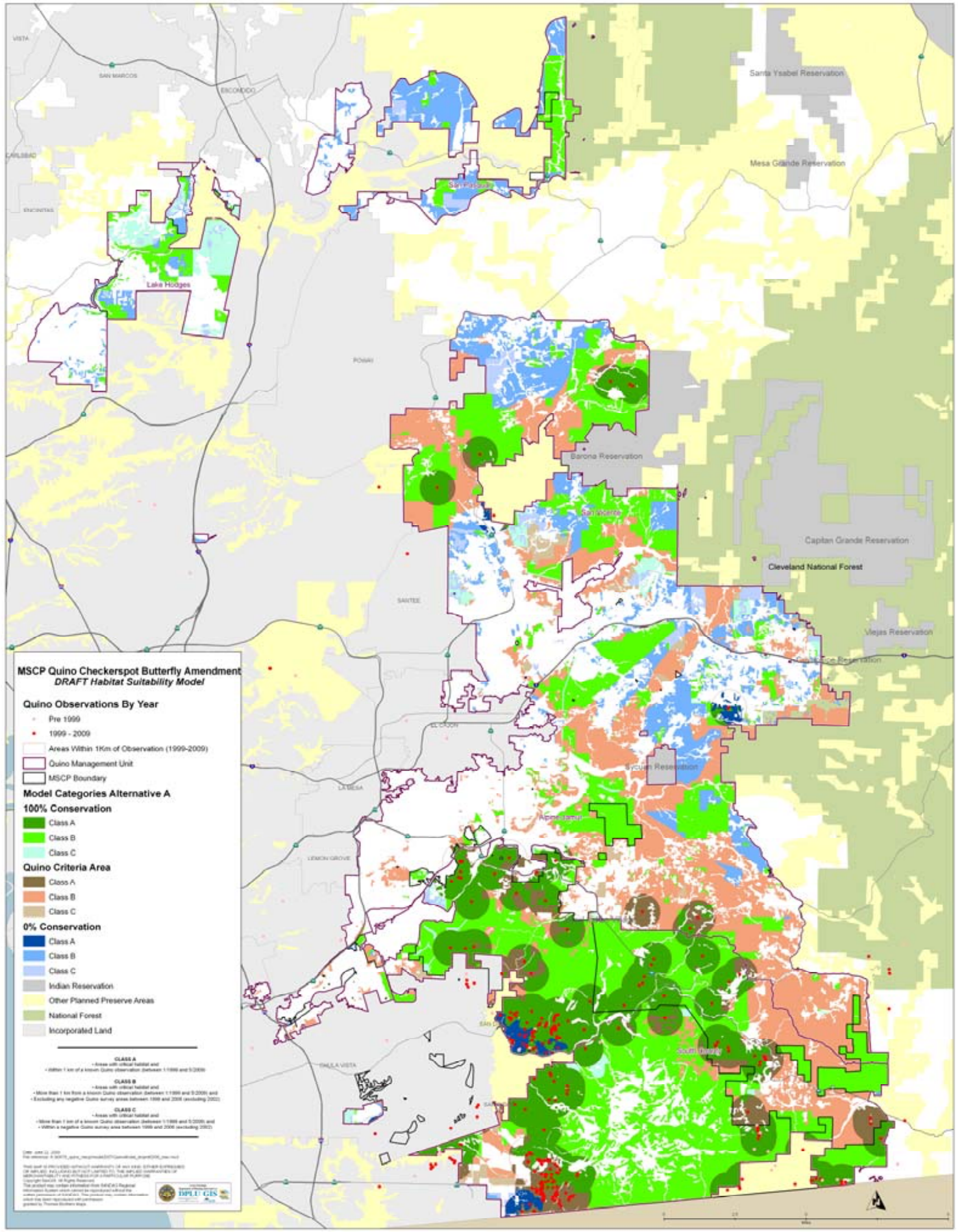
  A: Potential habitat within 1 km of observation.

  B: Unsurveyed potential habitat.

  C: Surveyed with negative results.

- Maps based on model results.

- Map areas grouped by conservation policy categories (100% Conservation, Criteria Area, 0% Conservation), and Classes A - C.


MSCP Quino Checkerspot Butterfly Amendment
DRAFT Habitat Suitability Model
Quino Observations By Year
Pre 1999
1999 - 2009
Areas Within 1Km of Observation (1999-2009)
Quino Management Unit
MSCP Boundary
Model Categories Alternative A
100% Conservation
Class A
Class B
Class C
Quino Criteria Area
Class A
Class B
Class C
0% Conservation
Class A
Class B
Class C
Indian Reservation
Other Planned Preserve Areas
National Forest
Incorporated Land
Santa Ysabel Reservation
Mesa Grande Reservation
Lake Hodges
Barona Reservation
Capitan Grande Reservation
Cleveland National Forest
Viejas Reservation
Sycuan Reservation

Quino 0% Conservation Area

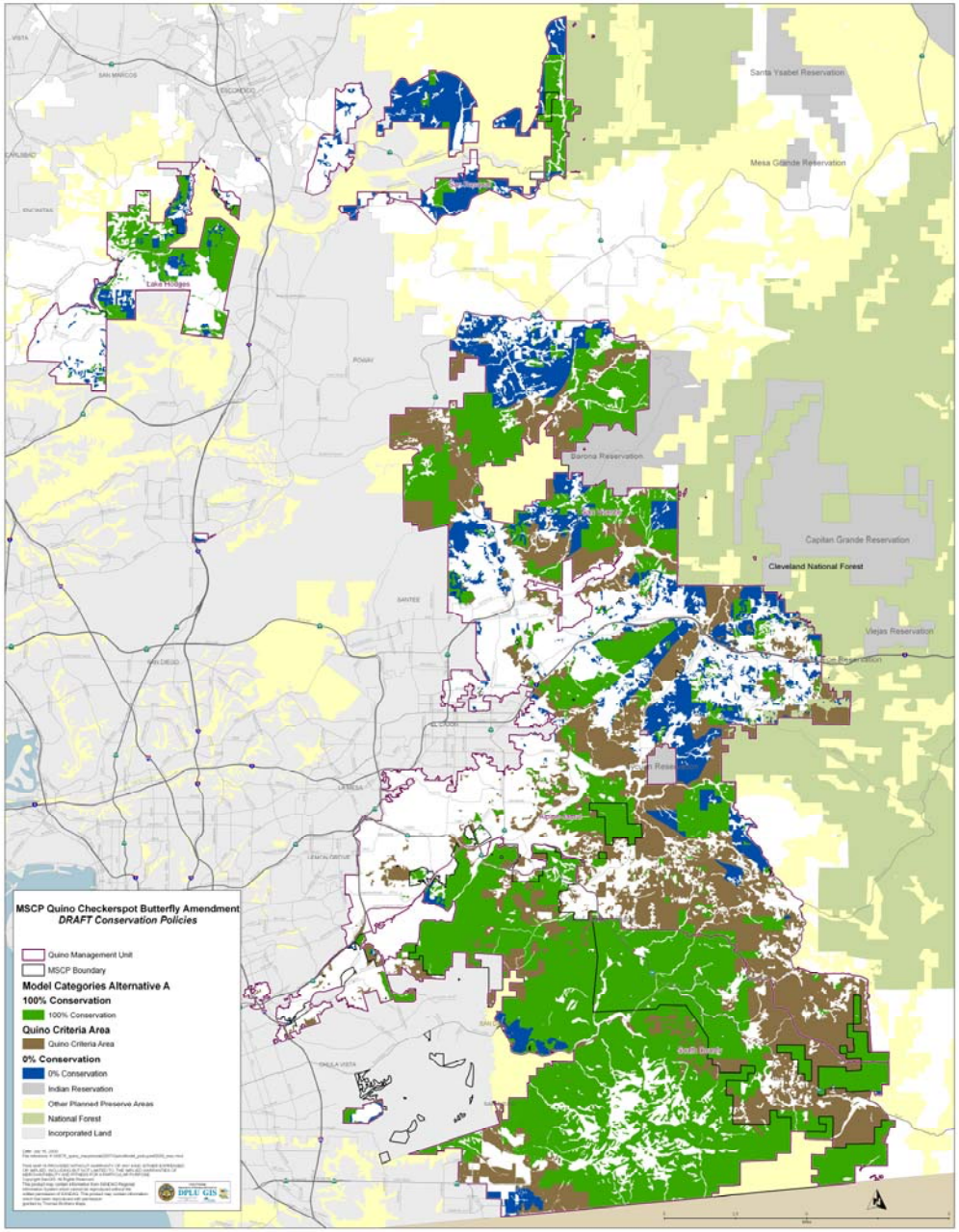
- Outside critical areas for Quino or isolated and without significant impact to species as a whole.
- No <u>on site</u> conservation of Quino required, but must mitigate impacts.

Quino 100% Conservation Areas

- Existing preserves and future preserves.
- No impacts to Quino or habitat, but compatible uses may be allowed (e.g., trails or staging areas that avoid impacts).

Quino Criteria Areas

- Mostly in PAMA that is not currently preserved.
- Occupied Quino Habitat to be avoided and preserved onsite.
- If complete avoidance infeasible, impact up to 20%, if will not render unviable.
- If impact Occupied Quino Habitat, must mitigate.
- May include unoccupied Potential Quino Habitat if critical linkage between metapopulations to maintain functionality.


Santa Ysabel Reservation
Mesa Grande Reservation
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Model Categories Alternative A
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Quino Criteria Area
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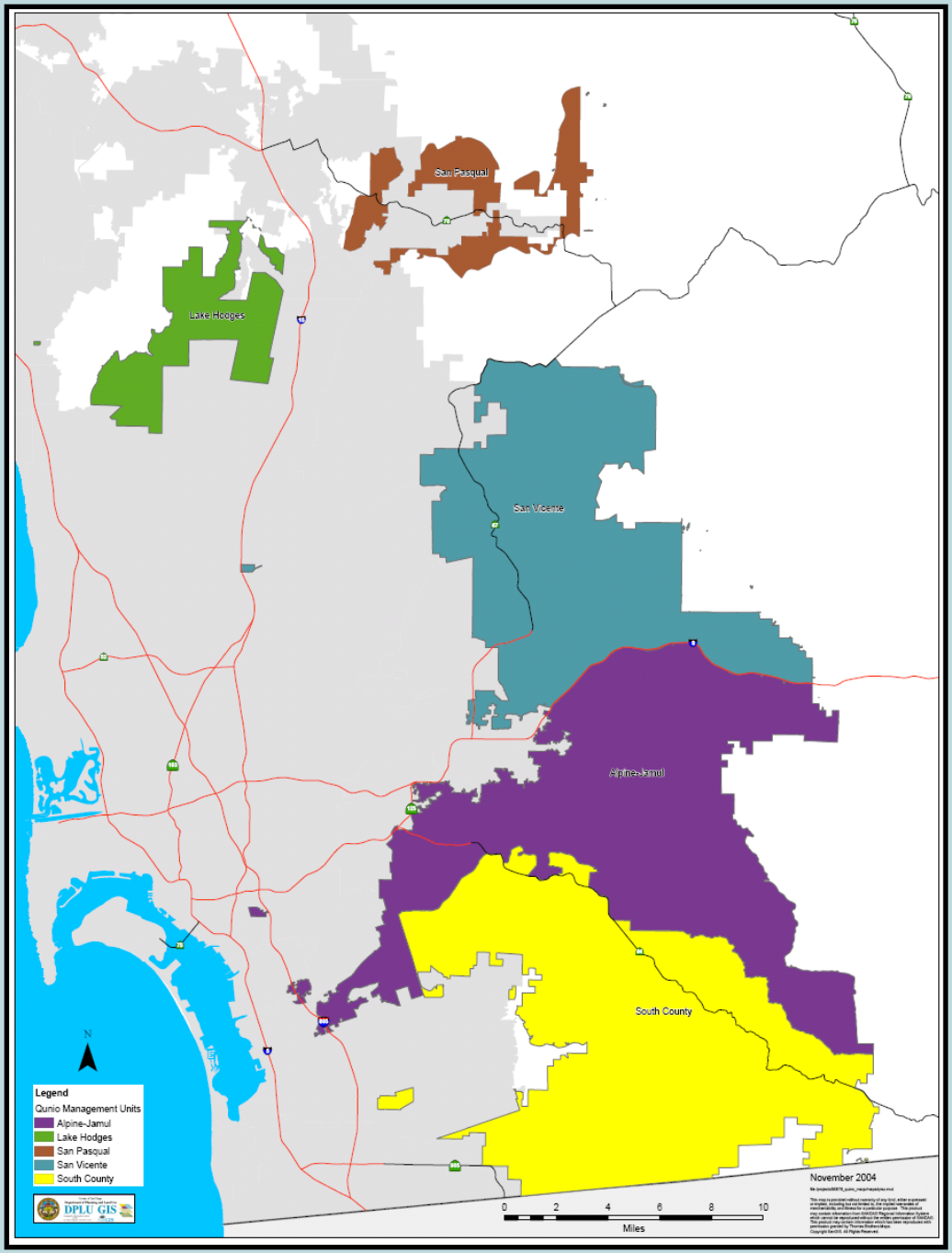
Other Planned Preserve Areas
National Forest
Incorporated Land

Survey Requirements

- South County, Alpine-Jamul, San Vicente Quino Management Units (QMU).
- Not required: San Pasqual and Lake Hodges QMUs.
- USFWS survey protocol.
- Negative survey results valid for one year.
- If Quino present, Occupied Quino Habitat (described next) must be mapped.


San Pasqual
Lake Hodges
San Vicente
Alpine-Jamul
South County
N
Legend
Qunio Management Units
Alpine-Jamul
Lake Hodges
San Pasqual
San Vicente
South County
DPLU GIS
0 2 4 6 8 10
Miles
November 2004

Occupied or Suitable Quino Habitat

- Used to assess project site conditions and minimization and mitigation requirements.
- Mapping of habitat to inform conservation measures rather than basing completely on known “Quino points.”
- Majority of their lives as larvae feeding on host plants; only fly as adults to feed on nectar for short period.

Occupied Quino Habitat

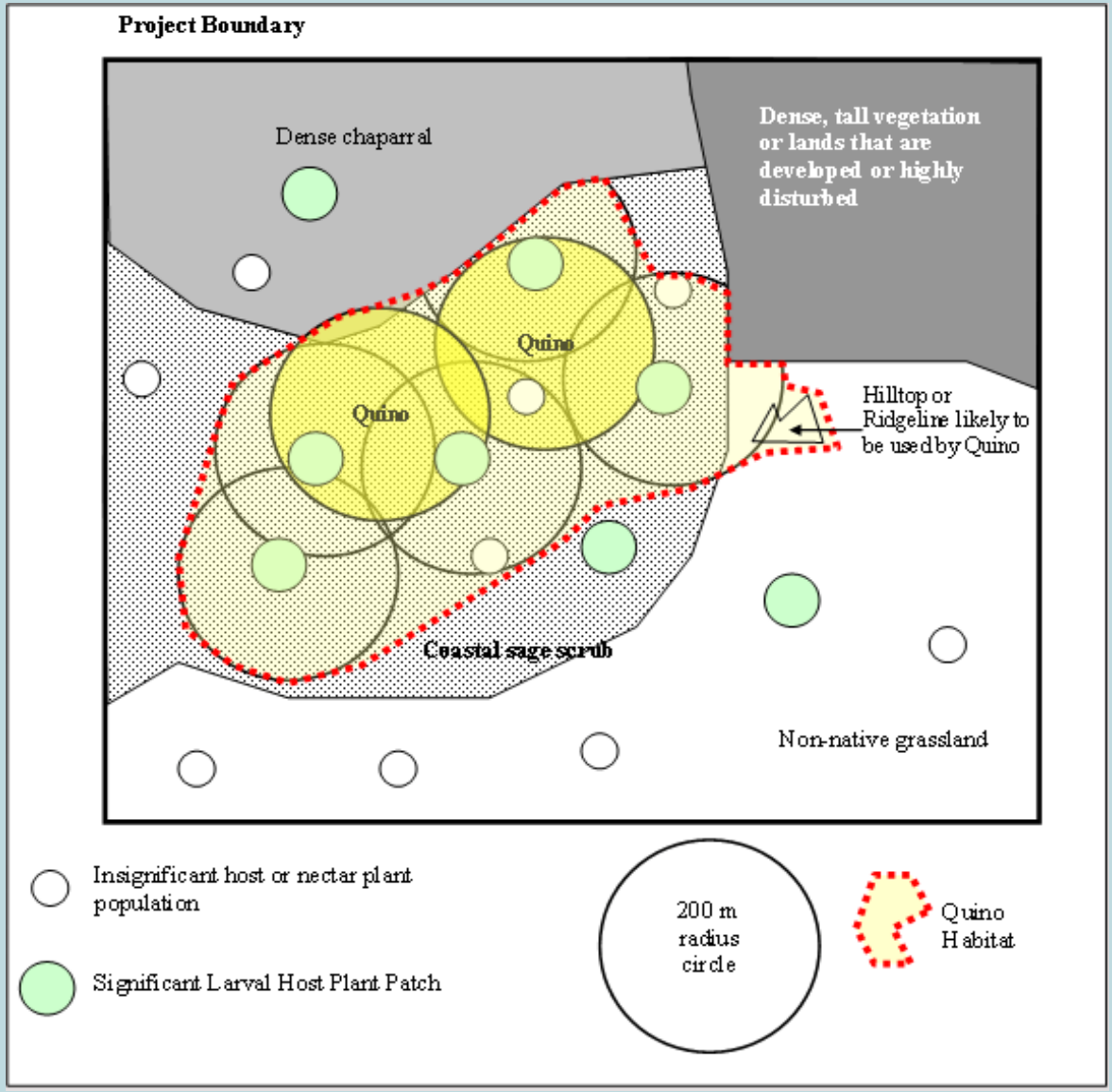
- Potential Quino Habitat within 200 m of sighting (minimum).
- Additional natural habitat with Significant Larval Host Plant Patches and nectaring plants extending out from sighting point.
- Hilltops or ridgelines linked by open areas and natural vegetation to open canopy areas for mating or hilltopping.

Occupied Quino Habitat (cont.)

Habitats excluded from extension beyond 200 m:

- Closed canopy chaparral, upland forest, or riparian forest without open areas at least 2 sq m in size.
- Dense meadows and non-native grassland with few host plants.
- Barriers such as solid fencing or walls over 2 m in height, dense vegetation over 3 m in height, and buildings.

Occupied Quino Habitat Mapping



Mitigation

- Required for impacts to Occupied Quino Habitat.
- In general, land conservation at set ratio.
- Must demonstrate substantial effort to:
  - Preserve Occupied Quino Habitat; and
  - Mitigate within same QMU as impacts.

Mitigation (cont.)

If demonstrate either action infeasible:

- Conservation of Suitable Quino Habitat within 1 km of Occupied Quino Habitat; or
- Conservation in different QMU may be allowed.
- Must be accepted by County / Wildlife Agencies.
- Increased mitigation required (4:1).

Viable Quino Habitat Creation

- Creation of viable Quino habitat can partially fulfill mitigation requirement.
- Disturbed habitat or agricultural lands.
- Involves dethatching and removal of grasses.

Mitigation Ratios
Occupied Quino Habitat

	Mitigation Site is in Same QMU as Impacts	Mitigation Site is in Different QMU than Impacts
Mitigation Site Consists of Occupied Quino Habitat	3:1	4:1
Mitigation Site Consists of Suitable Quino Habitat within 0.6 miles of Occupied Quino Habitat	4:1	(Not Allowed)

Conservation Analysis

- Large core population in South County QMU to be preserved.
- Known populations and Potential Quino Habitat in Alpine-Jamul and San Vicente QMUs to be preserved.
- Not likely in Lake Hodges or San Pasqual QMUs.
- Surveys required in South County, Alpine-Jamul, and San Vicente QMUs for projects.
- Conservation, avoidance, and mitigation measures will preserve populations.

Conservation Analysis (cont.)

- Conservation, management, and monitoring will ensure connectivity with and between unknown populations.
- Implementation will result in conservation of substantial interconnected Quino habitat and contribute to its recovery in the region.

Questions?

Adaptive Management and Monitoring Strategy

Adaptive Management and Monitoring

- Strategy to be implemented with Amendment.
- Additive to actions set forth in Framework Management Plan for County Subarea.
- Flexible to allow adjustments as new information is available and more is learned on strategies to maintain Quino.

Quino Habitat Requirements

- Sparsely vegetated openings in variety of vegetation types where host plants occur.
- Dwarf plantain (primary host plant) and native annuals are associated with cryptobiotic soil crusts.
- Quino is frequently observed on hilltops, even in absence of nearby larval host plants.
- Hilltops and ridgelines appear to be crucial elements of population survival.

Current Habitat Conditions

- Total acreage of Potential Quino Habitat:
  - 35,763 acres (23%) Class A
  - 110,566 acres (71%) Class B
  - 9,936 acres (6%) Class C
- Class A (86%) mostly in South County QMU (30,927 acres).
- Most observations in South County QMU, but some in San Vicente and Alpine-Jamul QMUs.
- Large amount of Potential Quino Habitat is in Class B, reflecting uncertainty in many areas.

Wildland Fire

- 2003 Otay Fire: burned habitat in Otay Mountain region.
- 2005 Border 50 Fire: burned habitat in Marron Valley. Harris
- 2007 Harris Fire: impacted Otay Mountain region, including areas burned in 2003 / 2005.
- Post-fire monitoring surveys have not indicated populations completely extirpated by 2003 / 2005 fires, but densities and extent of occupied habitat appear reduced.
- In some locations, fires opened new habitat
- Fuel Break east of Marron Valley is Quino habitat in chaparral

Biological Monitoring

- Monitoring program will involve:
  - Baseline habitat surveys; and
  - Quino occupancy and habitat monitoring.
- Objective is to develop baseline data on distribution and habitat to assist with occupancy and habitat monitoring protocols.
- Long-term monitoring protocols for occupancy and habitat will be refined as information is gained from field observations.

Baseline Habitat Survey Methods

- Existing preserves in South County, Alpine-Jamul, and San Vicente QMUs surveyed within 3 years of Amendment, as funding is available.
- Future preserves in QMUs will be surveyed within 3 years after land dedicated to preserve system.
- Surveys will be conducted on preserves prior to new recreational facilities or infrastructure.

Quino Occupancy and Habitat Monitoring

Objectives:

- Track status of populations over time to identify long-term trends;
- Initiate appropriate adaptive management responses; and
- Consider whether new potential habitat may have been created due to changes.
- Identify correlations between Quino and habitat conditions.

Adaptive Management

Objectives:

- Maintain net quality and quantity of occupied and unoccupied Quino habitats; and
- Maintain viable and interconnected Quino populations.

Adaptive Management (cont.)

- Conversion of native vegetation to non-native annual grasslands seems to be greatest threat, so focus (initially) on maintaining native vegetation.
- Other threats: climate change, repetitive fire, and drought.
- Continue to use Framework Management Plan for County Subarea for preserve management.
- Monitoring will be used to identify appropriate management actions for Quino conservation.
- Quality and quantity of occupied **and** unoccupied habitat important to metapopulation dynamics (re-colonization).

Adaptive Management Triggers

Trigger Points to Affect Levels of Management

- **Trigger 1: Reduced # of Occupied Sites**
  - Determine if reduction due to dispersal, habitat quality, or weather; begin enhancement actions.
- **Trigger 2: Extirpation at Specific Sites**
  - If due to vegetation decline, initiate enhancement. If habitat quality not cause, consider other actions.
- **Trigger 3: Populations are Stable**
  - Initiate restoration of unoccupied sites, as funding available.

Adaptive Management Methods

- Success depends on development of techniques to re-establish native forbs and grasses on a large scale.
- Habitat restoration and enhancement should follow experimental framework to identify most efficient and effective methods for long-term implementation.
- Some techniques proposed for restoration of native forbs in coastal sage scrub mosaic include dethatching and extensive hand weeding.
- Specific design of program to be coordinated with Wildlife Agencies and experts in the field.

Questions?

Next Steps

Upcoming Items

- Conservation Policy Paper: Written comments due August 13, 2009.
- Adaptive Management and Monitoring Strategy Paper: Written comments due August 13, 2009.
- Financing Plan Paper: Will be provided for review and comment in August.
- Next meeting: Will be in early September.
- Public review of EIR/EIS expected in spring and fall 2010.

Next Meeting
Tentatively Scheduled
September 3
10:00 am – 12:00 pm

Discussion

Comments

Questions